Date Revised : 18th March 2009

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Bud Factor X
MANUFACTURED BY: Advanced Nutrients,
#109 1063 Wheel Avenue
Abbotsford, Canada, V2T 6H1
Product Information Telephone Number: (604) 854-6793 (9:00-5:00pm PST)
Fax Number: (604) 854-4371
www.advancednutrients.com
24 HOUR TRANSPORTATION EMERGENCY NUMBER: Advanced Nutrients (604)-835-8088 U.S. & CANADA INTERNATIONAL

2. COMPOSITION / INFORMATION ON INGREDIENTS

DESCRIPTION CAS NUMBER WEIGHT PERCENT EXPOSURE LIMITS
Chitosan 9012-76-4 33% - Hazardous Material
Non-Ionic surfactant
N/E – None Established
N/A – Not Applicable

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Milky, Tan liquid/Protein odour.
EYE CONTACT: Very hazardous in case of eye contact (irritant). Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant). Inflammation of the eye is characterized by redness, watering, and itching..
SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention remove contaminated clothing and launder before reuse.
INHALATION: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.
CHRONIC: Not established.

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention.
Remove contaminated clothing and launder before reuse.
Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.
Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.
Notes to Physician: Treatment based on sound judgment of physician and individual reactions of patient. Remove salicylates by emesis with syrup of ipecac unless respiration is depressed. Do not use apomorphine. Delay absorption of the remaining poison by giving activated charcoal. If respiration is depressed, use airway-protected gastric lavage. Laboratory Studies: Determine serum salicylate levels, serum electrolytes, arterial blood gases, blood pH, coagulation studies, and renal function tests. Urine output should be done. Acid-base imbalance is common. In adults, respiratory alkalosis from hyperventilation and metabolic alkalosis from vomiting is common. In children, metabolic acidosis is often a significant problem. Treatment: In mild poisoning, with adequate urine output and no vomiting, give milk and fruit juice orally every hour up to a total of 100 ml/kg in the first 24 hours. In severe poisoning, begin hydration in the first hour with intravenous fluid, 400 ml/square meter. A 5% dextrose solution containing sodium bicarbonate, 75 meq/l, is satisfactory. However, do not use bicarbonate if the victim is alkalotic. After the first hour, the same solution can be continued at onethird
the initial rate until urine flow begins, dehydration is corrected, or evidence of renal insufficiency appears. After urine flow is established, add potassium 30 meq/l of administered fluid. Discontinue potassium when serum levels reach 5 meq/l. If renal function is adequate, fluid administration should be approximately 3 liter/square meter/24 hour. In the presence of abnormal bleeding or hypoprothrombinemia, give phytonadione, 10 mg intramuscularly. Fresh blood or platelet transfusions may be necessary. Do not give barbiturates, paraldehyde, morphine or other central nervous system depressants. If renal function is impaired, dialysis must be used to remove salicylates. Reduce hyperpyrexia by tepid sponging. Do not use alcohol for sponging.

5. FIRE FIGHTING MEASURES

Flash Point: 157 °C / 314 °F
Flash Point Method: Tag Closed Cup
Autoignition Temperature: 540 °C / 1004 °F
Flammable Limits in Air (%): Not Available.
Extinguishing Media: Use DRY chemicals, CO2, alcohol foam or water spray.
Special Exposure Hazards: Product will burn under fire conditions. As a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) presents a moderate to high explosion hazard.
Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.
NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 2, REACTIVITY 0
HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 1 , REACTIVITY 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment.
Environmental Precautionary Measures: Prevent entry into sewers or streams, dike if needed. Consult local authorities.
Procedure for Clean Up: Ventilate area. Avoid raising dust. Pick up solids and put in an appropriate sealed container for later disposal. Clean up residual with absorbent material and wash with water. Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE:

All products are pre-packaged and can stored under normal warehouse guidelines, product can be combustible keep away from direct heat or ignition sources.

8. SPECIAL PROTECTION INFORMATION

NOTE: The product itself does not produce hazardous fumes or vapors when handled as finished closed product, if the product is spilled or opened the following applies:
Engineering Controls: Local exhaust ventilation as necessary to maintain exposures to within applicable limits.
Respiratory Protection: If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator. Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against dusts, mists and fumes. Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a selfcontained breathing apparatus unit.
Gloves: Appropriate chemical resistant gloves should be worn.
Skin Protection: Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance.
Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.
Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: No data.
VAPOR PRESSURE: No data.
VAPOR DENSITY: No data.
SOLUBILITY IN WATER: Complete.
APPEARANCE & ODOR: Milky Tan liquid-protein odour.
SPECIFIC GRAVITY: No data.
VOLATILE BY VOLUME: None.
EVAPORATION RATE: No data.

10. STABILITY AND REACTIVITY

STABILITY: Stable.
INCOMPATIBILITY Iron salts, lead acetate, iodine, nitrous ether.
HAZARDOUS DECOMPOSITION PRODUCTS: None
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Ingestion: Harmful if swallowed. May cause nausea, vomiting, abdominal pain, ringing in ears, mental confusion, rapid breathing, increased heart rate, profuse sweating, kidney damage, liver damage. Some people may be hypersensitive to this product.
Skin Contact: Causes skin irritation. May be absorbed through the skin and contribute to the symptoms listed under ingestion.
Inhalation: May be harmful if inhaled. May cause irritation of upper respiratory tract. Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing. Coughing, shortness of breath, headaches and confusion may occur.
Eye Contact: Causes severe eye irritation. Causes redness and tearing.
Additional Information: May cause asthma, lung diseases and skin diseases.Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease. Prolonged contact can cause kidney damage, liver damage, chronic damage to stomach, involuntary shaling, anemia and internal bleeding. May cause allergic reactions in asprin sensitive people.
Acute Test of Product:
Acute Oral LD50: Not Available.
Acute Dermal LD50: Not Available.
Acute Inhalation LC50: Not Available.

12. ECOLOGICAL INFORMATION

Information not available.

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.
Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.):
DOT Shipping Name: Not Regulated.
DOT Hazardous Class Not Applicable.
DOT UN Number: Not Applicable.
DOT Packing Group: Not Applicable.
DOT Reportable Quantity (lbs): Not Applicable.
Notes: No additional remark.
Marine Pollutant: No.
Chitosan
DOT Classification: Not a DOT controlled material (United States).
Identification: Not applicable.
Special Provisions for Transport: Not applicable.
DOT (U.S.):
DOT Shipping Name: Not Regulated.
DOT Hazardous Class Not Applicable.
DOT UN Number: Not Applicable.
DOT Packing Group: Not Applicable.
DOT Reportable Quantity (lbs): Not Available.
Note: No additional remark.
Marine Pollutant: No.

15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on theToxic Substances Control Act (TSCA) Inventory List or exempt.
Chitosan
Connecticut carcinogen reporting list.: Chitosan
TSCA 8(b) inventory: No products were found.
U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

16. OTHER INFORMATION

The data here is for hazard communication to our employees, our customers and their employees, and authorized regulatory agencies. For the intended purpose, this MSDS (Material Safety data Sheet) may be duplicated or the data transcribed to an alternative form.

NOTE: The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, Advanced Nutrients U.S., LLC. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular period. Accordingly, Advanced Nutrients U.S., LLC. will not be responsible for damages of any kind resulting from the use of or reliance upon such information. NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HEREUNDER TO WHICH THE INFORMATION REFERS. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.